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International Fragmentation of Tradable Business Services: the Case of Hungary

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Abstract

Hungary is increasingly appearing on the map of trade in services. This is mainly due to the appearance of foreign owned shared services centres, regional or even global headquarters of multinationals.

First, data problems are listed in detail when analysing tradable services (applying, extending and analysing in-depth the problems indicated by Kirkegaard, 2005). It draws the conclusion that using available statistical data on trade and FDI is misleading in trying to assess the extent of Hungary's participation in the international division of labour in services. Moreover, lack of data hinders the analysis of other aspects. That is why the paper relies on detailed company case studies (8 companies interviewed in 2008 out of around 50 such centres in Hungary). Two aspects of export oriented services projects are analysed in detail: locational advantages of Hungary which attract such projects to the country and the impact of these projects on the host economy.

Vertical FDI associated with this type of efficiency seeking and highly export oriented projects, has completely different localisation requirements and local impact than horizontal FDI, which up till around 2000 dominated services FDI inflows in Hungary. As an analytical framework, Barba Navaretti, Venables, 2004 is used. The paper identifies the various elements of locational advantages connected to different elements of investment motives, in terms of cost reduction, reducing costs of disintegration of production, reducing other costs, and motives arising from the confluence of vertical and horizontal FDI, and relates these elements to the specificities of the business services sector. It differentiates general motives, which play a role in compiling the "longer list" of possible investment locations and motives which play the most important role in deciding about the final location of the investment. Analysis of Hungary is supplemented with a comparison with the other three Visegrad countries.

The paper also presents the most important channels through which FDI in business services may affect the host country. The analysis is based on theories, dealing mainly with the impact of manufacturing FDI, and especially of vertical FDI on the host economy (e.g. Dunning, 1993, Lall, 1980, Blomström, Kokko, 1997, Barba Navaretti, Venables, 2003, Caves, 2007), taking

into account specificities of business services. The paper identifies the following areas in which business services FDI impacts upon the host economy: job creation (type of activities and categories of employees affected), backward and forward linkages with local companies and with other local actors, and other spillovers (impact on the business environment and infrastructure, spillovers through trained employees).

Keywords: offshore outsourcing, business services, locational advantages, local impact, Hungary, East Central Europe

JEL: F21, F23, L8

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A nemzetközi munkamegosztás változása az üzleti szolgáltatásokban: Magyarország esete

Magdolna Sass

Összefoglaló

Magyarország szolgáltatáskülkereskedelme dinamikusan növekedett az utóbbi években. Ennek egyik fontos oka a külföldi tulajdonban levő üzleti szolgáltatóközpontok, egyes multinacionális vállalatok regionális vagy globális központjainak idetelepítése.

A tanulmány először bemutatja azokat az adat- és módszertani problémákat, amelyek miatt nehéz a kereskedhető szolgáltatások elemzése. A rendelkezésre álló külkereskedelmi vagy közvetlen külföldi tőkebefektetésekre vonatkozó adatok alapján nehéz megállapítani, hogy Magyarország hogyan vesz részt a kereskedhető üzleti szolgáltatások területén megvalósuló új nemzetközi munkamegosztásban, mi jellemzi az ebben az ágazatban megvalósuló beruházásokat. Így a tanulmány a Magyarországon működő üzleti szolgáltató központok vezetőivel folytatott, kérdőívvel végzett interjúkból nyert információkat elemez a statisztikai adatok mellett. Nyolc vállalatvezetőt interjúvoltunk meg 2008-ban, és mivel ebben az évben mintegy ötven ilyen központ működött Magyarországon, így viszonylag jól le tudtuk fedni az ágazatot. A tanulmány két kiemelt szempontból vizsgálja az üzleti szolgáltató ágazatban működő, külföldi tulajdonban levő, exportra termelő vállalatokat. Egyrészt megnézi, hogy melyek azok az előnyök, amelyek miatt ezek a központok Magyarországra települnek, másrészt pedig azt vizsgálja, hogyan hatnak ezek a fogadó gazdaságra.

Az ilyen típusú projektek vertikálisként írhatók le, amelyek hatékonyságkeresők és erősen exportorientáltak. A 2000-ig a szolgáltató szektorban Magyarországon domináns horizontális projektekhez képest teljesen mások azok a lokalizációs előnyök, amelyek a vertikális befektetéseket „vonzzák”, és eltér a kétféle befektetésnek a fogadó gazdaságra gyakorolt hatása is. Elemzési keretünk alapja a Barba Navaretti – Venables et al. [2004] tanulmánya, amelyben élesen elkülönítik a vertikális és a horizontális közvetlen külföldi tőkebefektetéseket, azok jellemzőit, lokalizációs előnyeit. A vizsgált szolgáltató központok esetében a lokalizációs előnyök több elemét határozzuk meg, amelyek a vertikális projektek esetében a költségcsökkentéshez, a termelés dezintegrációs költségeinek és egyéb költségek mérsékléséhez kapcsolódnak. A „vegyes”, a vertikális és horizontális elemeket is tartalmazó befektetések esetében természetesen ezek kiegészülnek a horizontális befektetésekre vonatkozó lokalizációs

tényezőkkel. Ezeket az ágazati sajátosságok alapján szűkítjük le. A vállalati interjúk alapján meghatározzuk az általános motivációkat, amelyek szerepet játszanak a potenciális befektetési helyszíneket tartalmazó „hosszabb lista" összeállításában, és azokat a motivációkat, amelyek meghatározóak a végső döntésnél.

A tanulmány bemutatja még azokat a legfontosabb csatornákat, amelyeken keresztül az üzleti szolgáltatásokban működő közvetlen külföldi tőkebefektetések hat(hat)nak a fogadó országra. Ehhez az alapot elsősorban olyan elméletek és empirikus vizsgálatok adják, amelyek a vertikális feldolgozóipari közvetlen külföldi tőkebefektetések fogadó gazdaságra gyakorolt hatását vizsgálják (például Dunning, 1993, Lall, 1980, Blomström, Kokko, 1997, Barba Navaretti, Venables, 2003, Caves, 2007). Ezeket természetesen az ágazat sajátosságaihoz „igazítjuk" a vizsgálat során. A tanulmányban a következő területeket találtuk fontosnak a fogadó gazdaságra gyakorolt hatás szempontjából: munkahelyteremtés (meghatározva a tevékenységek és a foglalkoztatottak jellemzőit), előre- és hátramutató kapcsolatok, és egyéb spilloverek (az üzleti környezetre és az infrastruktúrára gyakorolt hatás, a képzett munkaerő mozgása révén megvalósuló spilloverek).

Tárgyszavak: offshore outsourcing, üzleti szolgáltatások, telephelyi előnyök, a fogadó gazdaságra gyakorolt hatás, Magyarország, Kelet-Közép-Európa

JEL: F21, F23, L8

INTRODUCTION

East Central Europe is a location, where especially starting from 2000, more and more independent business services firms set up their operations and many firms concentrated their European or even global service centre there. Examples include for the first group Accenture in Slovakia, in the Czech Republic and Poland, EDS in Hungary, Cap Gemini in Poland, SAP in the Czech Republic and Hungary, just to name a few. As for the second group, among others, Lufthansa, Bayer, Philips, Electrolux, Volvo, Fiat, HP, Shell relocated certain regional or global service functions to Poland; Alcoa, Vodafone, Exxon Mobil, Avis, Cemex, GE, InBev, Morgan Stanley to Hungary; DHL, HP, Philips, Lufthansa, Exxon Mobil, InBev, Microsoft to the Czech Republic; IBM, DELL, Lenovo to Slovakia. Not only the number of projects grew significantly, but there were also some very big projects involved, employing thousands of new employees in their newly opened sites. (See e.g. Gál (2007), Capik (2008), Fifekova (2008), Hollinshead (2008), Sass (2008a), Sass (2008b), Svickova (2008), Trnik (2008).) As it is obvious, different countries were chosen for different activities, many companies are present in more than one country in the region with various service functions. In many cases, these service functions are transferred from other, usually Western European locations, causing white collar job losses there. This is one reason why these movements figure highly in the (Western) media.

In this paper we analyse in detail the locational advantages and impact of FDI in business services on the host economy, based on the experiences of Hungary. There are not many precedents in analysing this topic. There is little written about the impact of services FDI: academic studies usually concentrate on offshoring and offshore outsourcing in the manufacturing sector (van Gorp et al., 2006, p. 3). Moreover, the literature concentrates mainly on (developed) home country impacts, especially in terms of job losses and welfare implications, as well as home country firm strategies for outsourcing (Hansen et al., 2007, p.4). There is little written about the "supply side" of international fragmentation in services (Grover, 2008). Even analyses concerning home country impacts are somehow one-sided. They concentrate on the negative impact on the home country factor market in terms of changes in employment and wages. While there are many studies concerning the job loss and wage impact in the Western part of Europe (or in the US) due to globalisation, and thus due to the changing nature of distribution of manufacturing and service activities (see among others Geishecker (2002), Egger and Egger (2003), Marin (2004), Egger and Egger (2005) Geishecker (2005), Schöller (2007), Geishecker et al. (2007), Gianelle, Tattara (2007)), there is basically no information or estimate about the number of jobs created in both parts of Europe due to that process (Jensen et al., 2006, p.2). Analysis of the impact of services

offshoring and offshore outsourcing on the host economies, especially in Central and Eastern Europe is basically missing.

There is also little written about business services in Hungary. The few existing papers describe the main processes, based mainly on the analysis of available statistical data or using information published by consultancy firms. These papers agree on the increasing importance of this kind of services in the Hungarian economy and the role of FDI in it (see e.g. Hamar, 2005, Bajmócy, 2007, Gál, 2007 or Sass, 2008a.). Hamar (2005) calls the attention to the problems of measurability and lack of data, which limits our knowledge about the sector.

1. DATA AND MEASUREMENT PROBLEMS

In this paper we concentrate on captive offshoring and offshore outsourcing. Offshoring and offshore outsourcing refer to a company's decision to transfer certain activities, which were hitherto carried out inside the company, to another unit of the firm in a foreign location (captive offshoring) or to an independent firm (offshore outsourcing or relocation). Business process outsourcing describes a relationship between a vendor and a client, where the vendor performs an entire business service function for the client. (This definition is based on Chakrabarty, 2006, p. 35)

Table 1

Categories used in the analysis

Location of production	Internalised	Externalised (outsourcing)
Home country	Production kept in-house at home	Outsourcing (at home)
Foreign country(offshoring)	Intra-firm (captive) offshoring	Offshore outsourcing

Source: based on UNCTAD, 2004, p. 148

It is not easy to measure the real extent of the process, and the change in the global composition and distribution in affected service activities. Thus it is also not easy to determine how individual countries are affected and are involved in the process. (See e.g Mol et al., 2002, p. 14 or Mankiw, Swagel, 2005, p. 23 on the lack of data on international sourcing.) There are various sources of measurement and data problems.

It is important to differentiate between captive and independent service providers, i.e. between intra-firm or captive offshoring and offshore outsourcing. On the basis of the interviews taken in Hungary, these differ from each other in many respects, e.g. in size or in cost sensitiveness. (Sass, 2009) Van Gorp et al., 2006 relying on company level data and analysing separately these two sub-groups, also underline the differences in main motivations,

country destinations, perceived barriers, affected activities, success factors and future plans of these types of providers. One of their main conclusions is that captive offshoring and offshore outsourcing can not be regarded as interchangeable. This has its implications on the use of the available data as well. Offshore outsourcing and offshoring are related differently to foreign direct investment (FDI) and foreign trade. Understandably, offshore outsourcing is usually not connected to FDI, while it is usually connected to international trade. In the case of captive offshoring, an initial FDI is always involved, and later the output is exported to other affiliates and sold to the local affiliate of the same company if it exists. Contrary to offshore outsourcing, in captive offshoring, all these transactions remain inside the boundaries of the company, thus they are burdened with the problems of intra-firm trade, especially transfer pricing. This problem can be even more complicated in certain cases, where these two functions are mixed, i.e. the company provides services to its sister companies as well as to "independent" companies. For example, in Hungary, one service centre (which later became independent), provided services for its "own" affiliates as well as for independent companies in Hungary and abroad. (Sass, 2009) Similarly, according to Van Gorp et al., 2006, p. 16-17, a combination of captive offshoring and offshore outsourcing represents at least one fourth of all offshoring of Dutch and US owned service firms, executed from the Netherlands.

While differentiating between captive and independent service providers is important when analysing changes in the geography of business services, category and classification problems start at an even higher level. One of the major problems is caused by defining the services sector, services activities and separating them from manufacturing. Obviously, services activities are more heterogeneous than manufacturing activities, and in some cases; differences are larger between certain services activities than between services and manufacturing. (Nachum, 1999) Traditionally, the service sector was defined as an output, produced by human work, which is „destroyed" in the moment of that output is produced, it is intangible and cannot be stored, and requires the physical proximity of the seller/provider and the buyer. (Banga, 2005, p. 58) Even this definition is not clear enough for determining which activities belong to the services sector and thus must be reported. Some services are defined through their physical functions (e.g. travel), but some activities are more abstract and thus less easy to define (e.g. consultancy). Many services activities affected by outsourcing (and relocation) belong to this latter category. Thus it is obvious, that as Van Gorp et al., 2006, p. 9 states, the service sector is even thought to be less "standardisable" than the manufacturing sector, which is also reflected in the lack of general services classification.

Another problem relates to that subgroup of services, which is affected by the offshoring and outsourcing process. A lack of clear definitions is one of the most important hindering factors for research in outsourcing of business services. (Netland and Alfnes (2007) cite various articles which call the attention to the lack of definitions, classifications. the absence of

consensus and a lack of a generally accepted services classification.) Various names are used for describing same, similar or a bigger or smaller subset of groups of services activities, e.g. professional services, knowledge services, knowledge-intensive services, knowledge-based services, business services, other business services, IT-related services, computer and business services etc. – for an illustration it is enough to go through the references of the present article. This "plethora" of definitions can partly be explained by the fact, that the process of offshoring and offshore outsourcing of these services is very dynamic: there are more and more activities involved, which in itself can make the coverage of research outdated relatively quickly. (UNCTAD, 2004)

Data problems are also numerous. In theory, indicators based on foreign direct investment (FDI), trade or jobs data would provide a good basis for assessing the trends and the extent of the process. However, taking a closer look at these data reveals many problems.

For all data, there is a common source of unreliability. The line between manufacturing and services activities became so thin, that there are signs, that some of these services activities are recorded as manufacturing activities in terms of value added or jobs (See e.g. for Hungary: Szalavetz, 2006). As the line between manufacturing and services activities has been becoming very thin, there are more and more companies, which sell goods as well as services. For them, in many cases classifying deals whether they belong to goods or services may be a problem. This is not a negligence or fraud on the part of the reporting company, but a reflection of the fact that differences between many services and manufacturing activities are in the process of disappearing and companies face difficulties when trying to comply with the existing classifications. Moreover, for the statistical reporting of transactions where both goods and services are sold, the dominancy principle must be applied: the whole value of the transaction is classified as a 'good', if the good's value is bigger and vice versa. This may also result in not capturing the real value of services transactions. However, even firms operating only in the services sector may encounter difficulties in reporting their activities, as OECD, 2004, p. 94 states, due to the more and more complex nature of the activities and delivery modes. Moreover, the overwhelming majority of companies involved in offshoring and offshore outsourcing is a multinational or global firm, which are not organised alongside national lines, and thus reporting data to national statistical agencies may prove to be difficult for them. (OECD, 2004, p. 95) A good illustration of the problem is provided by the STILE project (www.stile.be), where coders in five EU Member States' statistical offices were asked to code 150 fictionalised descriptions of 'new' occupations and 150 descriptions of 'new' establishments in order to test the extent to which the international classification systems, ISCO (for occupations) and NACE (for sectors) currently capture the new realities of the eEconomy and to what extent statistical offices use uniformly the categories. The categories into where the

described occupations and sectors were classified differed to a great extent in the five countries.

It is true for FDI, trade and jobs data as well; that categories, used in presentation of the available data[1], do not offer detailed enough information on these activities. Services data are presented in a far less detailed way compared to manufacturing. According to Sturgeon et al. (2006), compared to manufacturing trade statistics, there are much less numbers of categories for services trade, e.g. in the US there are 17 services trade categories, while for goods trade the number is 16000. In many cases this high level of aggregation hinders the analysis. Basically, data on those activities, which are outsourced, are lumped together with other activities, which are less affected by the offshoring and outsourcing (and relocation) process. The detailed sector definition does not capture offshored and outsourced services. (WTO, 2005, p. 276) For example, in NACE classification, real estate, renting and business services are aggregated in one number. Even if data are more detailed, usually there are no details inside a category, while the activities involved can be very different and can be affected differently by the outsourcing process. According to the example given by Sturgeon et al. (2006) p. 26, a software service can be a customized software service or basic software coding or innovative-creative software development. Moreover, some activities, involved in outsourcing/relocation of services, can not be easily fit into the existing classification system, e.g. interpretation of radiology images – it is not certain if that is a health service, a computer service or something else. Another example here can be computer assisted reception services, when the employee in Hungary manages the reception system in a Luxembourgian truck parking garage, through a camera and a computer.[2]

FDI in services grew quickly lately, constituting the bigger part of FDI flows. Gács, 2007, p. 897 shows the quick growth of the share of services FDI in total FDI flows in the EU and the BRIC countries (Brazil, Russia, India, China) comparing 1990-94 and 200-2002 averages. As it was already mentioned, offshoring is usually connected to FDI, though not all FDI is offshoring. For offshore outsourcing, on the other hand, there are only a few cases when FDI is involved. Moreover, in order to be able to use FDI data for describing the changing geography of business services, it would be important to distinguish between FDI serving a foreign market, realised for captive offshoring or offshore outsourcing as it is stated by Kirkegaard, 2005, p.4 and 7, which is not possible on the basis of available data.

[1] Detailed data categories exist (see for example the IMF's Balance of Payments Manual on trade in services data), but the overwhelming majority of countries can not produce data, which would be consistent with these.
[2] Interview with the official of the Hungarian Outsourcing Association.

(Relative) FDI data can not be used to measure the extent of the process, because the data are not detailed enough, in some cases are not reliable (e.g. unspecified sector of investment or nationality of investor and other common problems with FDI data). Even if these data would be reliable, on the basis of the company interviews it is obvious, that the amount of FDI involved seems to be arbitrary: companies report very diverse sums ranging from 1 million to 1 billion USD.

Labour data in principle would be better than FDI in assessing the extent and characteristics of offshoring and offshore outsourcing in business services, primarily because jobs are basically the same, even after they are moved to another part of the world. However, international comparisons are aggravated by the fact, that the composition of activities, labour requirements and the size of the related service centres differ from country to country, and less aggregated data are not available. It also poses a problem that one can not differentiate among the relevant jobs according to the ownership of the companies involved, thus independent domestic providers are also included in the jobs data. For example, a leading official of the Hungarian Outsourcing Association could not produce an exact number of the jobs involved in outsourcing of business and IT services in Hungary from official statistics. The association has only an estimation of the number of related jobs. However, even reliable jobs data can be misleading. Bardham and Kroll (2003) call the attention to the difference between manufacturing and services outsourcing. While manufacturing outsourcing affected certain sectors, for services outsourcing, it is mainly certain occupational groups, which are affected, independently of the sector they are classified in. For example, many computer experts work outside the computer services sector, in various other manufacturing or services sectors, where computers are used. This statement about the different involvement of manufacturing and services companies can also be supported by the fact that according to UNCTAD, 2004, the outsourcing and offshoring of services are executed by companies in all sectors, while outsourcing and offshoring of goods production involves mainly manufacturing firms. Occupational categories in principle would provide a good basis for assessing the extent of offshoring and offshore outsourcing from the point of view of both host and home countries. Here again, high level of aggregation and missing information on the breakdown of various categories among the domestic owned and foreign owned companies hinders the analysis. For example, the ILO database "LABORSTA" contains information on only nine occupational groups in industries at ISIC rev. 3 one-digit level. (Data are provided for category K, Real estate, renting and business activities for all the nine occupational groups: http://laborsta.ilo.org/cgi-bin/brokerv8.exe) Moreover, here one can also refer to the results of the STILE project: not only companies but even experts of statistical offices have differing interpretations of occupational categories.

Data on services export and import would be a kind of indirect way of measuring the extent of offshore outsourcing. However, reliable services trade data are still missing and available services trade data are incomplete and not detailed enough. (Though recently Eurostat data make possible international comparisons at a more detailed level.) First of all, developments in the tradability and "storability" of services activities pose a problem, because thus services can be traded in the form of a good (music, software, films etc.). It is not yet decided whether these should be classified as goods or services. (Linder et al., 2001, p.4) At present, for example, packaged CD/DVD is recorded as a good, while custom-designed software is a service. Partly connected to that, compared to manufacturing products, it is more difficult to measure trade flows in services because their crossing of the border is mainly unobservable due to the non-physical nature of services and because of the absence of tariffs and other trade measures, which need a registration at the border. (Sturgeon et al, 2006, p. 16) Recently, the use of the internet-email for "transporting" the results of various services (e.g. consultancy) activities through borders, which is basically unnoticed, presents an additional problem. It also poses a problem, that some services activities became digitised and stored and thus can be traded in the form of a good (music, software, films etc.). It is not yet decided whether these should be classified as goods or services. (OECD, 2003) Data on services trade flows are collected from enterprises and from banks registering financial flows connected to services trade. This in itself leads to difficulties, related to recording and valuation, the analysis of values instead of volumes and consistency and symmetry. (Eurostat, 1996) Understandably, statistical offices must make an effort to use other sources of information in order to "rectify" the data received from the above two sources. Thus, besides data received from banks and enterprises, according to Linder et al., 2001, other four sources, such as surveys of households, administrative data, government data; and information obtained from partner countries and international organisations can be used, which may be supplemented by modelling and estimation techniques. These differ from country to country. In Hungary, for example, besides these, the Statistical Office regularly checks membership and registry information from industry associations, chambers of commerce and relevant national authorities, in order to update the list of companies dealing with services trade.

Even when other sources and methods are used to justify or correct the information, some transactions may remain unnoticed. Similarly to manufacturing, there are certain country-specific threshold levels set for mandatory reporting of transactions in services. These threshold levels are usually set annually, though the trend is towards increasing the estimated part at the expense of the reported part of the overall data – due to the data collecting capacities of statistical offices. Because of the dynamism of the sector, companies, which previously did not export or import services, but became important traders in a few years' or even months' time, may be left out from reporting, as it is noted by STURGEON et al., 2006, p.

25. In Hungary, at present the sample contains 30,000 companies, which provide data quarterly, and according to the estimations of the officials of the Statistical Office, the sample may lag behind with 2-3 years. There are many small companies, which can increase their services exports very rapidly, because they move into a niche in the international market. A recent example is the Hungarian-Israeli NavNGo, which was established in 2004, develops three dimension map softwares for navigation and increased its sales 5 fold in 2008, the majority of which was from exports. (www.navngo.com) Not only quickly growing companies, but also one-off transactions may be left out. In Hungary, "stable" companies in the sample represent only about 70 per cent of total services trade.

Further reporting problems arise from non-reporting, or double reporting because of re-export, which can be traced in big differences in mirror statistics (differences for trade in services in mirror statistics are larger than for goods' trade (van Leeuwen, Lejour, 2006, p.6). Moreover, the balance of payments contains data on services foreign trade, however, these services export and import lines are those in many cases, which help companies to realise not declared profit repatriation (e.g. in the form of management fees or payment for cultural services etc.), so even these data are unreliable regarding the real extent of services trade.

It is also problematic to determine the share of relocations in services outsourcing. This can be decided on a case by case basis. (See more details in Hunya, Sass, 2006) Not only the "customary" indicators (e.g. FDI) do not give information about that, but it seems, on the basis of company interviews, that even inside one project, relocation and non-relocation elements can be mixed to a much greater extent than in manufacturing. (E.g. relocating an "old" activity and together with that introducing a new activity in the newly opened service centre.)

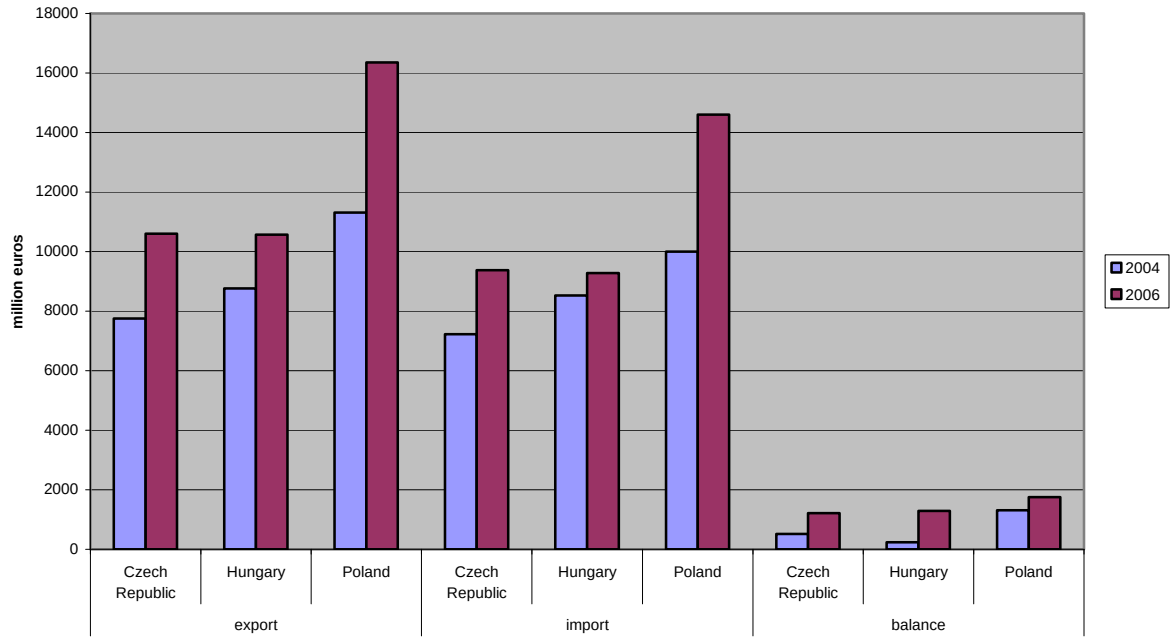
2. MIRRORS NOT REFLECTING: AN ILLUSTRATION OF DATA PROBLEMS

Let us here illustrate the data problem. Services trade data would provide a good and relevant source for calculating and determining the extent of relocation and outsourcing, because these services activities are highly export-oriented, their export/sales intensity in most of the cases is close or equal to 100 %. However, as we saw, highly aggregated services trade data do not allow to separate those activities, which are involved in the relocation and outsourcing process. Having a look at the inside-EU-25 services trade of the three selected countries (the Czech Republic, Hungary and Poland) shows, that their share is increasing and that it is higher than their share in the population or GDP of EU-25. It is also apparent, that their turnover shows a positive balance with other EU countries, which is gradually increasing. Moreover, data also show that their services trade is concentrated on other EU-member countries: the share of inside EU-25 services trade compared to outside EU-25 services trade is considerably higher for these three countries, than the average for the European Union as a whole. Moreover, at a

lower level of aggregation it can also be shown, that the share of “Other Services” and inside that, “Other business services”, which are expected to contain those activities, which are affected the most by the outsourcing and relocation processes, grew dynamically. (Similar tendencies for Hungary are indicated by Bagó, 2008, p.3; she also notes the high share of intra-company trade in that process.)

Chart 1

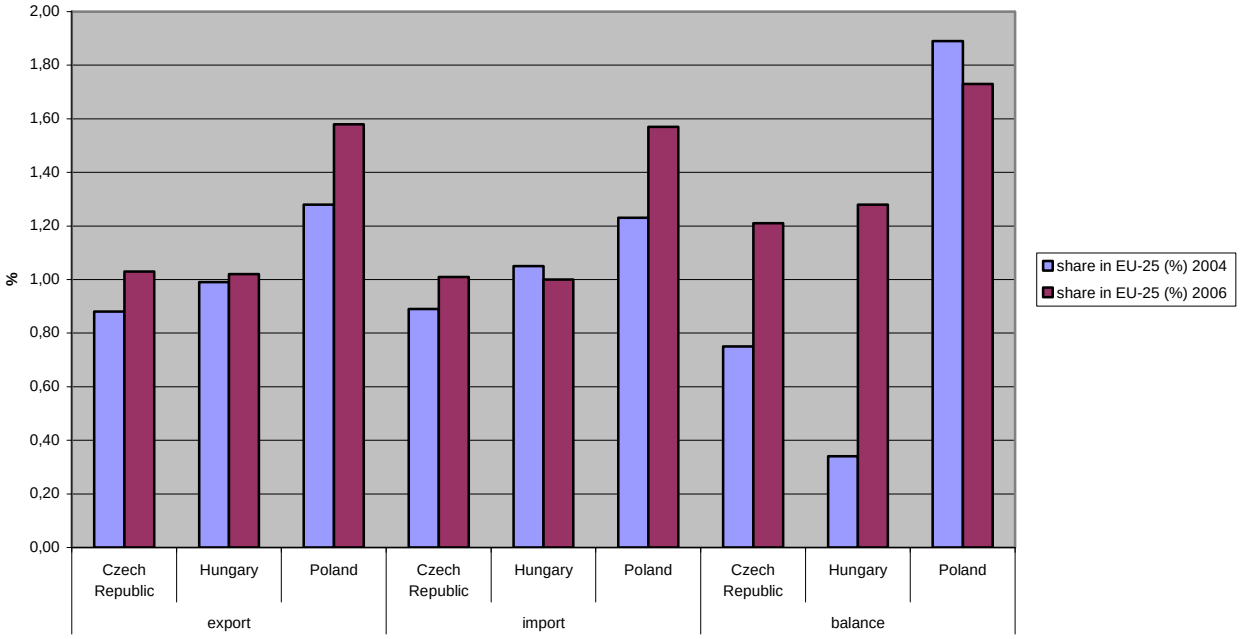
Developments of total services trade (intra+extra-EU) of the three selected countries, 2004, 2006 (million euros)



Source: own calculations based on Eurostat data

Chart 2

Share of the selected countries in total services export and import of EU-25 countries, 2004 and 2006 (%)

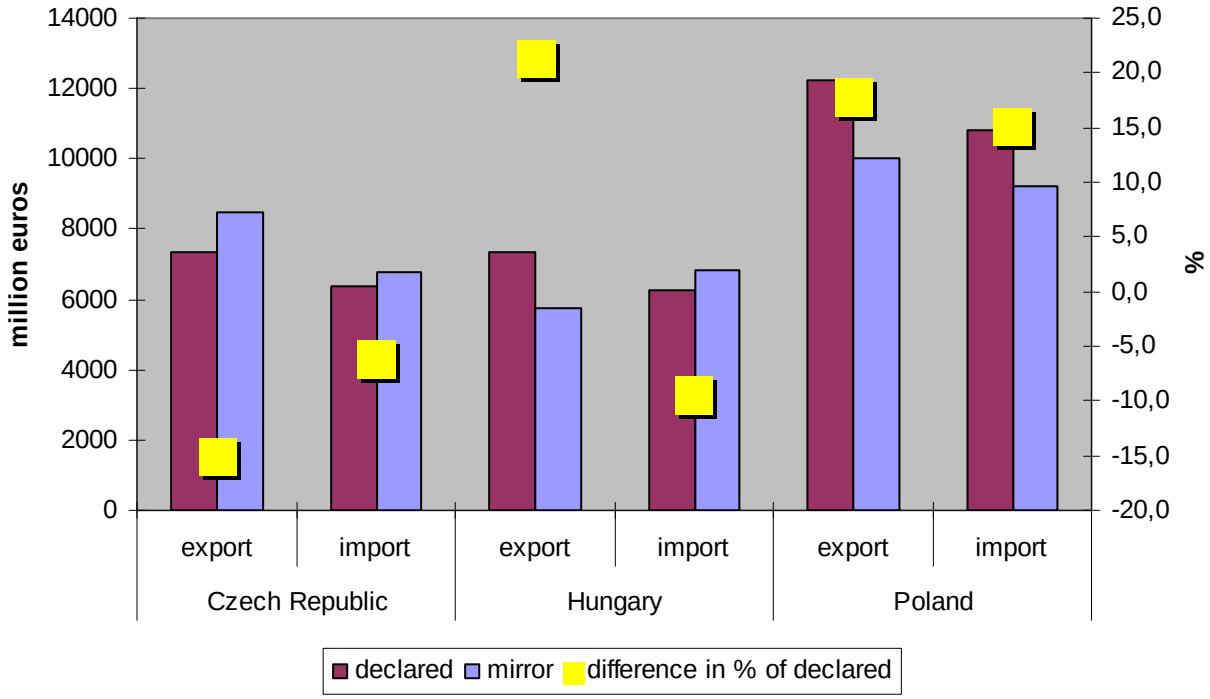


Source: own calculations based on Eurostat data

However, the above trends can be taken only as indications, and they tell us nothing about the real extent of the outsourcing and relocation process and the involvement of the Czech Republic, Hungary and Poland in it. As an illustration, let us have a look at the difference between reported (by the above three countries) and mirror statistics. First, Graph 1 presents data for total services trade in 2006 between the selected countries and other EU member states. It is obvious, how big the differences are between reported data and mirror statistics, especially for Hungarian exports, Polish exports and imports and Czech exports.

Chart 3

Differences between declared and mirror statistics, total intra-EU27 trade in services, 2006 (million euros and %)

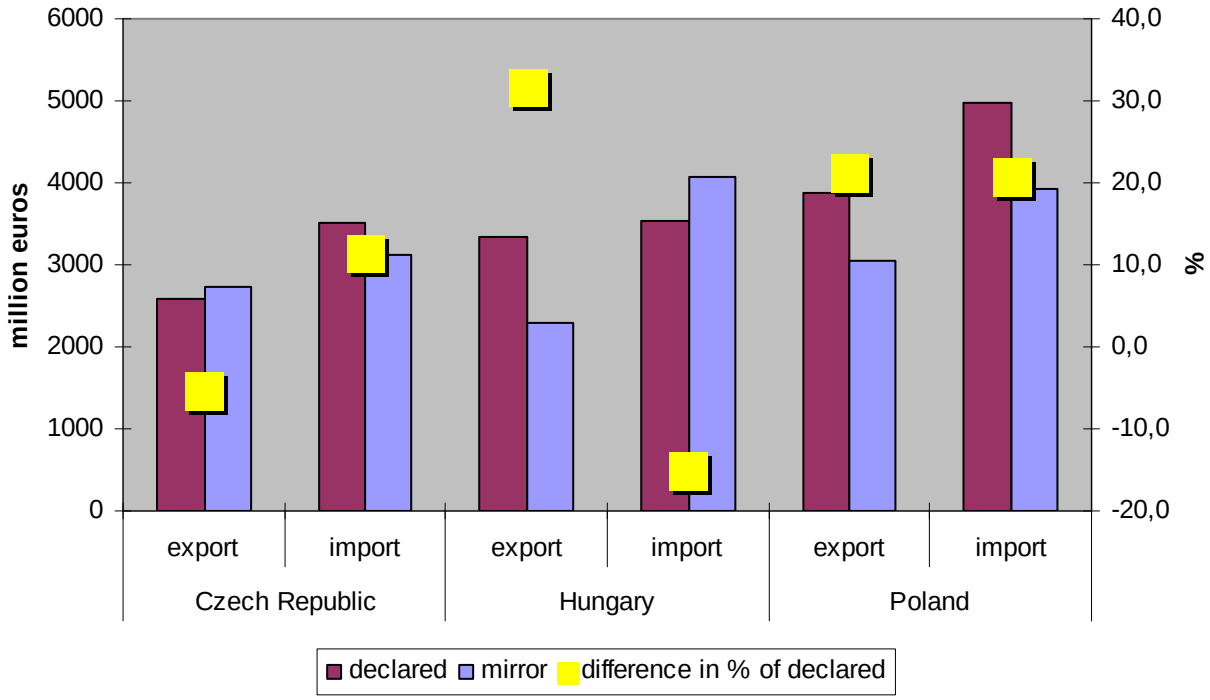


Source: own calculations based on Eurostat data

Differences are not smaller for trade in "Other business", which contains most of those services activities, which are outsourced and/or affected by relocations. Here, the biggest differences characterise Hungarian exports, Polish exports and imports and Hungarian imports.

Chart 4

Differences between declared and mirror statistics, intra-EU27 trade in "other services", 2006 (million euros and %)



Source: own calculations based on Eurostat data

There is always a difference between reported and mirror statistics, for which the reasons are the following. Time lag between reporting in the two affected countries, different thresholds of reporting, different methods of reporting, impact of the different currencies used in reporting, methods of CIF-FOB conversions, impact of intermediary trade, lack of reporting from some companies, differences in the "inclination" to reporting in the member countries, and different correction mechanisms applied for missing data. (Eurostat, 2000 és Economic Commission for Europe, 2008) Correction of these data is made more problematic by the fact that exchanging data across national borders (between statistical offices) is complicated partly because of privacy protection reasons. (Giovannini, 2007, p. 14)

These "usual" problems are aggravated in the case of services by the above listed specific data problems. However, while some differences between reported and mirror statistics is explainable and can be accepted, these are too big between these two data sets in the European Union. That is why it is problematic to use them in trying to assess the extent of changes in relative positions of countries.

This problem is not confined to these three countries, not even to Europe. Mankiw and Swagel (2005) refer to a study by Kozlow and Borga (2004), who found that "…data on U.S. services imports account for little of the services exports to the United States reported by other countries. For example, the BEA import data capture only 17 percent of 2002 services exports from India to the United States (as reported by India)." (p. 36.)

3. WHAT DO THE AVAILABLE DATA TELL US?

Together with acknowledging this limitation, hereby we start our analysis by looking at characteristics of services trade and output of selected Central European countries (Czech Republic, Hungary and Poland for the period of 2004-2006).

The relatively short period, for which comparable data are available from the Eurostat, hinders deeper analysis[3]. However, one can see that

- Trade in services grew rapidly in all the countries, according to their balance of payments data.
- They all register a significant positive balance in trade in services, and rapidly growing surpluses in the case of Hungary and Poland.
- Their share in total inside EU-25 services trade is growing.
- Their services trade is significantly more oriented towards EU-25 than the EU-25 average.
- As for the big service categories (transportation, travel and other services), the share of other services grew in all three countries;
- Inside the "other services" group, the share of "Other business services" is the highest in all the analysed countries (in 2006: Czech Republic: 18 %, Hungary: 27 %; Poland: 18 %), and this share grew a few percentage points between 2004 and 2006;
- Inside "Other services", the second largest share was taken in 2006 by Computer services in the Czech Republic (5,3 %), by Personal, cultural and recreational services in Hungary (8 %) and by Construction services in Poland (6 %);
- Inside the "Other business services" category, the highest (and growing) share is taken by Other miscellaneous business, professional and technical services in the Czech Republic and Poland, and by Legal, accounting, management and public relations services in Hungary,

[3] More details see in Sass (2008).

- Specialisation indices ((X-M)/(X+M)*100) and RCA compared to EU-25 were calculated for all aggregation levels for the three countries. RCAs did not change and did not reveal comparative advantages for the three countries at the highest level of aggregation for Other services (they showed CA for both Transport and Travel for the Czech Republic and Poland, and for Travel for Hungary),
- At a lower level of aggregation, among other services, RCA was shown for the Czech Republic and Hungary in Communication services, and for the Czech Republic in Information services and for Hungary in Personal, cultural and recreational services, Royalties and licences and in Other business services.
- At an even lower level of aggregation, inside Other business services, Hungary had an RCA in Legal, accounting, management and public relation services, all three countries had RCA vis-á-vis the EU in Advertising, market research and public opinion polling, Poland had an RCA in Agricultural, mining and on-site processing services, and the Czech Republic and Poland had an RCA in Other miscellaneous business, professional and technical services in 2006 (there was basically no significant change taking place between 2004 and 2006, for which years data were available).

Overall, these countries recently could increase their export of certain services significantly, mainly towards other member countries of the European Union. However, their market shares still remain limited.

Having a look at output and value added data of Hungary, we find the following (for the period of 2002-2006, data are published in the national accounts of the Central Statistical Office)[4].

- In Hungary, services represent a growing share of economic activity. Services sectors grew basically at the same pace as the total economy, which is indicated by their more or less unchanged shares in total economic activity. In terms of value added, the share of the service sector grew by almost 3 percentage points between 2002 and 2006. From our point of view, an important finding is, that "Other business activities" are responsible for half a percentage point of that growth.
- There were significant changes taking place in the services sector of Hungary during the last decade. The share of public services declined in both output and value added, at the same time, financial intermediation, and real estate, renting and business services (mainly in value added) were gaining shares.
- The foreign trade of services grew dynamically, especially for business services. This sector changed its trade balance from negative to positive by 2004. While tourism is

[4] Detailed tables are in Sass (2008).

still the most important services sector for exports, both in its share and in its contribution to the services trade surplus, construction and other business services contribute also to the positive trade balance. The specialisation of the Hungarian economy also changed: while tourism is still the most important "specialty" of Hungary, construction is also one of its specialisations, together with personal cultural services and other business services.

The following table contains a selected list of companies in the sector present in Hungary.

Table 2

Selected service centres which have received financial incentives in Hungary

Company	Home country	Location in Hungary	Number of jobs (actual or planned)
ExxonMobil	USA	Budapest	1200
IBM ISSC	USA	Budapest	1300
Celanese	USA	Budapest	200
Diageo	United Kingdom	Budapest	600
Getronics	Netherlands	Budapest	510
Jabil	USA	Szombathely	719
SAP	Germany	Budapest	600
Tata	India	Budapest	450
Convergys	USA	Budapest	282
EDS	USA	Budapest, Vasvár	1150
InBev	Belgium	Budapest	380
Budapest Bank	USA	Békéscsaba	530
Morgan Stanley	United Kingdom	Budapest	450
Citigroup	USA	Budapest	302
Vodafone	United Kingdom	Budapest	746
British Telecom	United Kingdom	Budapest, Debrecen	700
T-Systems	Germany	Budapest, Debrecen	1750

Source: ITDH, interviews

The above listed data problems induced many researchers of the topic to urge for more qualitative research and the combination of qualitative and quantitative research in order to have information about the trends and the extent of the process. (Sturgeon et al, 2006, p.35) Available data are advised to be used only when supplemented with information from company questionnaire surveys and/or interviews in order to have a fuller picture about this process. In our research we relied on semi-structured interviews with leading representatives of companies in the sector in Hungary. There were eight interviews taken in the course of 2008. This can be considered as good coverage because at that time there were an estimated fifty companies operating in the sector in Hungary. The two largest companies were interviewed besides smaller sized ones.

4. LOCATIONAL ADVANTAGES

Locational advantages determine which countries are chosen as hosts to new or relocated service centres, in accordance with the theories of Dunning and Porter (see e.g. Dunning, 1993). Locational advantages for this kind of activities are similar to those of efficiency seeking investments: the availability of those factors of production at a lower cost that are used intensively in the production of the service in question and exploiting the economies of specialisation and scale. (Dunning, 1993, p. 144) However, to find out further details about locational advantages, it is important to differentiate between the locational factors of two distinct types of MNCs: those of horizontal and vertical MNCs. While services FDI was dominated by horizontal MNCs for a long period of time (Caves, 2007, p. 13), at present, due to the fragmentability of services production processes, which was made possible by technological innovations (UNCTAD, 2004), vertical type FDI has been appearing in services as well. Moreover, the overwhelming majority of the firms analysed in this study is of that nature, given their high export orientation and servicing of foreign markets. There are only two firms in the Hungarian sample, where the share of sales to the domestic market is significant. All the other affiliates in the sample sell their products almost exclusively to foreign entities: either the parent company or other related affiliates, or other independent companies.

Locational advantages, taken into consideration by vertical and horizontal FDI differ from each other to a great extent. (Caves, 2007; Barba-Navaretti, Venables, 2004)[5] For vertical FDI the most important motive of investing abroad is reducing costs due to economizing on the money spent on the factor of production, which is used the most intensively by the given activity. Elements of this cost reduction are the most important: price of that factor of production, i.e. wages of relevantly skilled labour and other measures reducing their costs of production. This latter means that this type of FDI is more sensitive to tax differentials and FDI incentives. (Caves, 2007, p. 236) Basically, supply-side factors are essential. Moreover, vertical FDI faces a Major cost due to the disintegration of production. (Barba-Navaretti, Venables, 2004) Factors influencing the disintegration cost are also important when taking the decision about the investment. Thus, costs connected to the transportation of the outputs of the fragmented production also matter, e.g. trade costs and the host country's general policy towards openness to trade. (Schatz, 2004) Other elements of the business environment, which help the company functioning smoothly, are common elements with the locational factors of horizontal FDI. (For example, political stability, regulatory environment, rule of law, infrastructure etc.) On the other hand, demand side factors, e.g. the size and the dynamism of

[5] Not differentiating between horizontal and vertical FDI results in an incomprehensive set of locational factors, e.g. investors preferring high wages (resulting in high domestic disposable income and thus high demand for their products) and at the same time low wages (supplying the investors with a cheap factor of production).

the domestic market, are not important for vertical FDI. However, because in reality, these two types of FDI can be confluent, elements of the locational advantages attributable to horizontal FDI can also be present, especially in cases where sale on the domestic market is significant.

Another set of locational factors can be deduced from the specificities of the sector. They need relevantly skilled labour, in many cases together with the knowledge of certain languages, though the skill requirement of the activities varies to a great extent. Because the products need to be transported to the place where they are consumed, and in this sector this is made mainly through the internet, telephone, fax etc., good quality telecommunication infrastructure (especially broadband) is an important locational factor. In order to ensure smooth functioning of the service plant, certain other services (e.g. financial, other business services, community services) must be available. Moreover, good legal and regulatory environment (with effective enforcement) is important (in some cases protection of intellectual property is indispensable due to the nature of the products). The service activity is carried out in offices, thus availability of sufficiently big and relevantly equipped office spaces at competitive prices is also important. Geographical proximity is an advantage in some cases, together with the coincidence of time zones with the market served. (Though for certain activities different time zone is required.)

Table 3

Main locational advantages for business services FDI

Motive	Elements in BPO
Cost reduction due to lower factor costs	Lower wages (ULC) of relevantly skilled labour
Reducing costs of disintegration of production	Transport costs (infrastructure, esp. telecom, geographical proximity in cases were regular personal contacts are required) Trade costs (trade barriers, institutional openness, economic integration etc.)
Cost reduction: other costs	Incentives Economies of scale Costs connected to office space, to IP protection, to other elements of infrastructure Labour market regulations Cultural proximity
Cost reduction: due to the "smoother" functioning of the affiliate	Stability of the economic and political environment
Other motives (partly from confluence with horizontal FDI)	Together with factors affecting the "smoother" functioning of the affiliate, demand side factors (e.g. size and dynamism of local market)

Source: own compilation

Motives can be "deviated" from the above lists by

- activities, characteristic of the investment (e.g. physical activities involved; knowledge of certain languages; specific skills)
- company type (captive or independent: independent may be more cost sensitive, than captive, where there is a possibility for cross-financing activities, and where there may be a longer "moratorium period" for the affiliate to become profitable)
- the size/geographical position of the market served, and connected to that:
- geographical orientation of the centre (global, regional, local, where e.g. transport and trade costs to that relation may differ)
- size of the company (bigger companies my be less cost sensitive on a shorter run?)
- nationality of the investor (home country characteristics e.g. in determining the inclination of the company towards offshoring and offshore outsourcing of business services; different business culture and decision taking processes)

When a company decides about a foreign investment, first they compile the list of the potential locations, which may contain up to 20 countries. These can be grouped into three categories: 1) the most popular investment destinations of the world, 2) countries close to already operating foreign affiliates of the company, and 3) "emerging" investment host countries. This longer list is then reduced to a shorter one with approximately 5 countries, after taking into account various costs and characteristics of the business environment. These remaining countries are then visited personally by the responsible managers of the company. They may visit more than one site inside a country. Before the final decision about the site is taken, they compare costs, elements of the business environment, and investment incentives. (Harding, Smarzynska-Javorcik, 2007) Investment decisions are taken at least one to two years before the actual investment is realised, though longer periods between the investment decision and the realisation of it are also possible.

The analysed countries became a major destination for FDI connected to business process outsourcing, for both captive and independent service providers. They host mainly regional and European centres, but there are some global centres present as well. E.g. among the companies interviewed in Hungary, there are five global centres. (Some companies comprise numerous units, among which there are global centres, regional centres (for bigger or smaller regions, e.g. EMEA region, European region or East Central European region), and there are units, which serve only the local market. These latter are very infrequent in the Hungarian sample, there is only one of this type of units inside one company comprising several units.)) This indicates that the analysed countries and among them Hungary, contain those locational advantages, which are important for FDI realised in the business services sector.

According to Table 1, companies in the Hungarian sample were all concerned with cost reduction, which can be realised through locating to a site where costs of relevant labour (skilled, language speaking) are significantly lower. This reinforces the predictions of the theory concerning the most important locational advantages from the point of view of vertical FDI. CEE countries, and among them in Hungary, have the relative factor price advantages in that respect compared to more developed countries. They also have a "knowledge advantage" compared to other lower priced countries in terms of the knowledge of "smaller" languages and a good supply of university graduates in the required fields. As it is obvious, language requirements vary considerably, but usually English and other European languages are preferred, which underlines the market orientation of these companies. According to the opinions of the interviewed managers, the analysed countries have the tradition of a relatively good education system, especially in certain fields, e.g. in mathematics, engineering, IT, and they are not outstanding, but provide a relatively good education in economics, accounting etc. All in all, wages were mentioned in seven of the eight interviews, skills in six and knowledge of languages (usually other then English) by five. The countries of the region all have geographical and cultural proximity to Western European and/or Anglo-Saxon markets, which the main markets are served by these centres. Their cultural proximity makes them a unique place for Western European (and to some extent for North American) investors in the sector. Their geographical proximity to the served region (and/or to the home country of the investor) is important, when frequent personal contacts and visits are required. In some cases, the served region includes South European, African and Middle Eastern markets, the relative geographical proximity to which is also an advantage of the countries of the region, and inside them of Hungary. Three of the eight interviewed managers gave a high mark to this factor.

A relatively frequent mention was made of the relatively stable political and economic environment. In international comparison, in the region, and inside it in Hungary, the regulatory environment is fine, some elements are outstandingly good. The rule of law is relatively strong. EU-membership can provide a good "trust" basis, which can be backed by the fact that with the advent of their EU-membership, Bulgaria, and especially Romania started to attract this kind of projects in great numbers. Five of the eight interviewed managers "appreciated" the relative economic and political stability in Hungary.

Box 1

Celanese's choice of location

Celanese is a US corporation, based in Dallas, Texas, US. It produces chemical products, found in consumer and industrial applications. These are manufactured in North America, Europe and Asia. It is a leading global producer of certain chemical products. It established a Finance and Accounting Shared Service Center in Budapest, Celanese Hungary Kft.. The Center was launched in September 2007, and supports certain financial operations for the USA, Mexico and Western Europe. This is a real global centre, serving in some respects Asia and other continents as well.

In transferring and concentrating the service functions to Budapest, the following motives were important: cost motives, reaching scale economies by concentrating these activities into one place, control processes and risks, standardisation and mitigating risks.

When choosing the location for the new shared service centre, the firm first of all considered the company headquarter in Dallas, Texas, US. Second, Germany was a possible choice, because there are significant operating capacities. However, gross wages were at least four times higher in these locations, than in Central and Eastern Europe. So cost considerations overwrote the list, and Central European countries became the main targets of locational choice. In this region, the following cities were on the list: Cracow, Vilnius, Prague, Bratislava, Bucharest, Budapest and Warsaw, which were all visited in person by a representative of the company. On the final list, only Prague, Bratislava and Budapest remained.

At the end, Budapest became a clear favourite. The reasons for this were the following:

1. number of students available for that type of work,
2. level of infrastructure, especially IT,
3. "small" languages (e.g. Chinese, Spanish) spoken and many languages available,
4. the role of ITDH, however, concerning this latter, after first good impressions, the experience of the company was rather mixed.

Source: interview with Michael Colicchio, managing director of Celanese Hungary Ltd.

Correspondingly to the list compiled on the basis of the theoretical approaches to locational advantages, the fact that relevant infrastructure, especially IT is available in relatively good quality and at reasonable prices, as well as office space, was underlined by four managers. One of them mentioned also the availability of office space as a factor determining their choice of location.

The above opinions, expressed in the interviews are subjective, and they were not influenced by giving a list of possible factors. However, their correspondence with the original list of locational factors influencing the investment decisions of vertical FDI provides us with some insight into the relative importance of these factors.

Table 4

Main characteristics of the interviewed companies and locational advantages preferred by them

Company	Captive (C) or independent (I)	Centre type and market served	Nationality of the parent company	General motives (of compiling the long list)	Geographical region considered for the investment	Motives of choosing from the short list
1	I	Global, in some functions European centre	North America	- inside Europe - labour costs - skills - language knowledge - geographical proximity to main markets - predictable business and legal environment - harmonisation with EU laws	Only inside Europe	- minorities in neighbouring countries - German language spoken - dynamic affiliate - no incentive until late, then minimal
2	C	Global centre	North America	- labour and other costs - economies of scale and risk reduction by centralisation - skills - infrastructure (IT) - small languages	1. US 2. Germany 3. CEE Inside CEE: Cracow, Vilnius, Prague, Bratislava, Bucharest, Budapest Final 3: Prague, Bratislava, Budapest	- price/quality ratio of relevant labour - level of infrastructure related to costs - incentives: mixed “feelings”, later
3	C	European centre	North America	-labour force (skills, languages, costs, availability) - political stability - infrastructure -the possibility of changing to local management	Europe: Austria, France, Germany, Spain, and CEE Inside CEE: Brno, Warsaw, Budapest	- languages - skills - infrastructure - no incentive at all

4	I (formerly C)	European centre	Asia	- costs: wages - business environment - languages (small and big European languages)	CEE	Strongest presence in Hungary (other affiliates)
5	I	In some functions global, in others European, in others CEE region, in others local	North America	- best cost/value relationship esp. for skilled labour - specific skills: IT (good supplies) - culture - political and economic stability	CEE	- better knowledge of languages - Hungary was considered to be the regional centre
6	C	EMEA region centre	North America	- cost reduction: main elements: wages, infrastructure (telecom), office space, together with quality	CEE for EMEA region Short list: Cluj, Brno, Gdansk, Budapest	Budapest: best balance between quality and cost
7	I	In one function global, in others regional centre	Europe	-availability of a team of highly skilled people (less cost sensitive in some segments) - good business environment	Short list: Prague and Budapest	- better skills in specific segments - availability of labour -incentives
8	C	Global centre	Europe	- costs: wages of skilled labour - languages: high level English - geographical proximity - infrastructure	CEE, short list: V4, Moscow, Romania	- workforce, - English language - good geographical position, good experiences with other affiliates - incentives: received after the investment decision was taken

Source: own compilation based on company interviews

After compiling a longer list and then a shorter list of possible locations, it is important to see, what those factors are, which determine the final choice of the site of the investment i.e. reducing the short list to one item. The last column of Table 1 gives information on that. The analysed countries are considered to be more or less identical, or very similar in those characteristics which may act as locational advantages for FDI in business services. For example, ULC and other elements of human capital, measures of labour market tightness, the level of development of the relevant elements of the infrastructure, relative (effective) taxes are

very similar in the Visegrad countries. The research made by the investing companies (or by a commissioned institute or agent) revealed significant differences among them, which were of vital importance in the decision taking process. From the point of view of Hungary, which is considered to be the least good in languages, four companies indicated that fresh university graduates were the best in language knowledge in this country according to their results. One of them attributed that to Hungarian minorities living in the neighbouring countries. Besides English, companies mentioned German and smaller European languages, which were readily available in Hungary. (However, this was partly due to native speakers living in Hungary.) Four companies found that the price-quality ratio of skilled labour was the best in Hungary.

Also four companies were influenced significantly in their choice by the good experience with the country based on experiences of affiliates already functioning there. This success in attracting further investments may also be due to instant lobbying of the local affiliate. Because in almost all interviewed companies the change to local managers is an explicit aim, these predominantly local managers understandably want to widen their capacities, strengthen their roles in the company. Moreover, agglomeration effects seem to be at work when choosing a location inside a region. (Caves, 2007, 63-65) This latter can also play a role in choosing an already known site.

Three companies found the level of the infrastructure, the most relevant from the point of view of their activities being the highest in Hungary. In order to evaluate this, it is important to note, that all these three companies are located in Budapest.

Effective taxes strongly impact upon the location of FDI (Hassett and Hubbard (1997), Clark (2000), or Taylor (2000)), and fiscal incentives may play a role in influencing the effective tax rate. Financial incentives may impact upon the costs associated with the investment, and thus they can be important for vertical FDI. In the sample, however, incentives played a minor role in the investment decision. Four of the eight companies received any type of incentives (usually financial ones connected to job creation), however, none of them received them automatically: they have to apply for them, and the outcome is not guaranteed. One of them even complained about the very bureaucratic nature of getting any support. Basically all of them received incentives (if any) only after the decision about the investment was taken. Moreover, in the given framework of financial support for job creation, the amount of grants is quite small. This is true, in spite of the fact, that the analysed countries, and among them in Hungary, attracting regional headquarters, service centres is one of the most important targets of investment agencies. Incentives offered to this type of projects are relatively generous, though their generosity does not differ to a great extent among the countries in the region. Moreover, projects deemed to have strategic important can receive additional “taylor-made” support from the respective government in the analysed countries.

However, among the interviewed companies there were no beneficiaries of such “taylor-made” incentives.

5. IMPACT ON THE HOST ECONOMY

(Offshore) outsourcing of services activities offers advantages to both home and host countries. The literature concentrates mainly on (developed) home country impacts, especially in terms of job losses and welfare implications, as well as home country firm strategies for outsourcing. (Hansen et al., 2007, p.4) At the same time, offshoring and offshore outsourcing offers various advantages and disadvantages for the host country as well. These are in line with those, presented in the literature, and which can be grouped in three categories: product market effects, factor market effects and spillover effects. (Barba Navaretti, Venables, 2004) As far as product market effects are concerned, this type of FDI results mainly in the increase of the variety and quality of products, and through that impact, they may increase competition and displace domestic entrepreneurs and companies. However, because of the tradeability of this specific product and because even previous to the appearance of this companies this type of business services were mainly imported, this crowing out effect is of smaller importance. The impact of BPO-related FDI is much more important on factor markets, especially on the labour market. It increases the overall demand for labour, and it has a significant influence on the skill composition of that demand, because it increases demand for highly skilled employees. This may impact upon the development in relative factor prices – however, the analysis of this phenomenon is outside the scope of the present study. Spillover effects may take two distinct forms: those of technological and pecuniary externalities, because FDI goes together with costs and benefits which are not directly transmitted through the market. (Barba Navaretti, Venables, 2004) Direct technology transfer is also important in this case, because affiliates deploy the latest technology. However, spillovers from these remain limited. Other types of effects, for example acquisition of labour skills concerning technology, managerial skills, know-how, knowledge about the markets and even “business ethics” in a wide sense, and their transmission to local companies is an important channel through which these foreign owned companies may impact upon the local economy. Pecuniary externalities may occur in this case through the use of local suppliers, including local services providers and through selling products to local companies (backward and forward linkages). This may result in an increase in the quantity and quality of local output, and in the increase in the productivity of local companies, through providing access to good quality services and opportunity to outsourcing certain services, and thus concentrating on core activities. Moreover, by its nature, this type of FDI has an impact on the balance of payments: a one-off impact on the capital balance (?), followed by further impacts if reinvestment of earnings is realised, and another impact on the

current account by its export intensity. However, the analysis of this latter impact is seriously hindered by methodological problems and data limitations. Another "instant" gain and benefit for the host economy is from taxing the companies in question. (Caves, 2007, p. 239) Here not only profit tax is important, but all other taxes, minus the extra costs (incentives, additional public services required to deal with foreign owned companies). Here we do not deal with this problem.

From the point of view of the home country, the most important benefit can be improvement in the level of competitiveness of affected companies, and the opportunity provided by offshore outsourcing that freed resources may be used in more complex and more profitable activities, requiring higher levels of skills. Cost reduction is obtained not only through reducing personnel costs, but it is also important, that concentrating certain activities to one location provides economies of scale as a benefit, too.[6] However, temporary or permanent white collar job losses are associated with services outsourcing. Because of this latter fact, impact of offshore outsourcing of services has been widely researched and discussed in developed countries, while the impact on host countries attracted much smaller attention. (Similar conclusion is drawn by Hansen et al. (2007) concerning the group of developing countries.)

On the basis of company interviews, the following main categories of impact on the host economy can be distinguished.

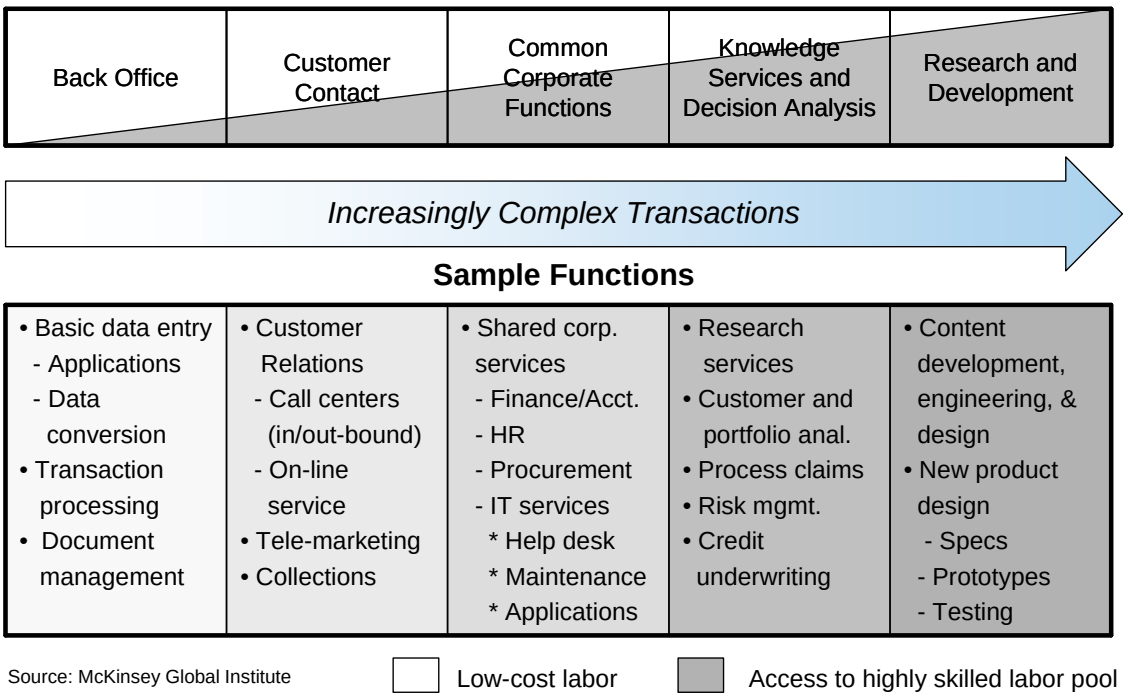
5.1 RAISING DEMAND FOR SKILLED LABOUR

First of all, it is important to determine, what kind of activities are transferred to the three analysed countries. As it was already mentioned, it is obvious that the activities in question are very diverse, and the skill content of these activities varies from the least skill intensive to processes using the highest quality workforce. Even in the case of the same activity, the skill content may be different depending on the real content of the activity: e.g. a call centre can provide basic information on one language, on multiple languages, and more comprehensive information on multiple languages.

[6] While home country impacts are not analysed here, it is important to note, that this positive scale economies impact was mentioned explicitly by one investor, and was obvious int he case of at least two other investments out of the eight companies interviewed in Hungary.

Scheme 1

Offshored services



What kinds of jobs are offered and what kind of activities are carried out in these companies? This is the topic, about which the (interviewed) companies are usually reluctant to give out any information. However, it is obvious, that there are two companies of the eight in the Hungarian sample, which carries out the most complex activities, which belongs to the fifth category in the Scheme. The other companies interviewed operate in a "bunch" of activities, comprising mainly functions described in the second, third and fourth boxes of Scheme 1. In one of the companies, in one of the twenty plants, activities belonging to the first box (transaction processing and document management) are also carried out, though this activity represents a very minor part of the activities of the company in question.

Specific IT call centres are also operated by one of the companies, which can not be assessed as a "simple" customer contact activity, because a higher level of IT-knowledge of the employee is a prerequisite.

Except for the back-office activities, in all other jobs in Hungary, the knowledge of at least one foreign language is a prerequisite.

Scheme 2

Activities carried out in the companies interviewed in Hungary

Back office	**Customer contact**	**Common corporate functions**	**Knowledge services and decision analysis**	**Research and development**
►►►Increasingly complex transactions►►►				
Transaction processing Document management Data entry Data processing	Call centres Telemarketing	HR Accounting Administrative services Financial services IT call centres Other IT services Quality management Cost planning Service delivery (after sales) Supply chain management	Program and project management Financial program management Integration engineering Analytical accounting services Business performance analysis Cost analysis	(Original) software development Mathematical modelling

Source: own compilation based on company interviews using the scheme of McKinsey Global Institute

Altogether, on the basis of the company interviews, activities carried out in Hungary belong to the medium- medium-high skilled categories. To a certain extent, unskilled intensive and high skilled activities are also present, but medium skilled ones dominate[7]. Thus, service centre and regional headquarter projects created a large number of mainly medium to high skilled jobs (according to Scheme 1) in the analysed countries. The overwhelming majority of the jobs is white collar (there was only one company case among those interviewed in Hungary where a dozen of blue collar jobs were involved among the total number of 2000 jobs created). The average age of employees is relatively low, below 30 years of age, there are many for whom this is the first job after graduation, thus these projects contributed to the reduction of unemployment among fresh graduates. Between 80 and 90 per cent of employees have a university diploma, the majority of them speak more than one foreign languages. There is a gender aspect at the lower level of aggregation of services activities carried out in these centres: while engineers, software engineers and other IT-related employees are dominated by men, human resources managers, accountants are mainly women. The picture is more mixed for call centre workers; however, a slightly lower than in the above cases domination of women is present also there. Partly due to the strenuousness of certain job categories, partly due to the high demand and relatively low supply of relevant workers, high attrition rate (fluctuation) characterizes the sector.

By now, the sector faces shortage of properly trained employees. In one of the interviewed companies, there are 200 vacancies of 2000 positions. In Hungary this can be the reason why this kind of projects started to "spread out" to the countryside, especially to university towns. In Hungary, especially three university towns close to the border gained some important projects, where as an additional advantage from the other side of the border, people with "small" languages can be employed. The above mentioned company with 200 vacancies is now present in 20 cities in Hungary.

As it can be seen from Table , the eight companies interviewed created almost 5500 jobs. Altogether, according to various sources and estimations, in Hungary around 20.000 such jobs were created up till now, according to 2008 data, this represents approximately 0.5 per cent of total employment and almost 1 per cent of services employment in Hungary. Own calculations based on the data of the Central Statistical Office.)

[7] Just to give estimation about the shares of various activities: the eight interviewed companies created approximately 5500 jobs. Around a dozen of these belong to the lowest category and around 220 to the highest. All the remaining jobs can be considered as being of "medium-high" complexity.

5.2 LINKAGES

Linkages and other local contacts between foreign investors and local firms can be one of those channels, through which these projects may impact upon the local economy and local firms. (Dunning, 1996; Lall, 2000; Blomström and Kokko, 2000) In the literature, linkages between services projects and local economic actors are hardly analysed. However, the literature on linkages in manufacturing can give some insights into those in services. There is a set of factors, which influences the intensity of local linkages of a company with foreign participation. (Sass, Szanyi, 2009) These are the following: the mode of FDI entry (greenfield or acquisition), the share of foreign ownership (100 % foreign owned and joint venture), sectoral differences, export oriented versus domestic market oriented investors (or vertical versus horizontal FDI), the gap between the performance of the "foreign" and "domestic" sectors (the larger the difference, the less the linkage), the age of the investment (for older investment there are more linkages), the quality and quantity of local suppliers: supply side and demand side, the size of the affiliate, the nationality of the investor, the global strategies of MNCs and the role of the affiliate in the production network of the company. The impact of these factors is especially relevant when the vertical, export-oriented nature of this type of projects is taken into account and the role and independence of the affiliate in decision making is analysed. From our relatively small sample it seems, that the age of the investment has also some impact.

In terms of backward linkages, they are quite limited for all companies functioning in the sector, as it can be seen from Table 2. This finding is in line with that of Caves, who noted, that for labour intensive processes there is less potential for backward linkages. (Caves, 2007, p. 224)[8] While this activity is not unskilled but skilled labour intensive, this statement holds for it.

Local sourcing is confined to buying various services from local companies, such as cleaning, security services, catering, and certain training services; and to using local infrastructure (telecommunications, electricity, financial services, other infrastructure). There are only a few cases, when part of the core activity of these companies is outsourced to local companies, one reason can be the temporary lack of capacities, another reason, which may result in a more lasting relationship with a local company is, when lower value added activities are outsourced to local companies. (The alternative to that latter is to relocate these activities to lower wage neighbouring countries, which happened in one of the interviewed companies.)

As far as forward linkages are concerned, they can benefit the host economy by raising the quality of business services. However, selling services to local companies is also at a relatively low level in our sample. Export intensity in terms the percentage of export sales to local sales is close to 100 per cent in most of the cases. In the captive cases, this is understandable; all

[8] Even if Caves referred mainly to manufacturing sectors, this seems to be equally true for services.

services are exported except for when the local affiliate is served, though the share of this latter is minimal in the Hungarian captive case. One Hungary-based company has a relatively low export/sales ratio of 60 %. Here one reason for the relatively high share of local sales can be found in the long history of the firm in the Hungarian market, it is present here since 1991. This resulted in concluding longer term contracts with big local companies during the nineties, among others with privatised Hungarian companies and local affiliates of GE, Coca Cola, Thyssen-Krupp, ABN-AMRO, Sony). For another independent service provider, sales on the domestic market are significant.

Thus the contribution of backward and forward linkages to raising the level of the competitiveness of local companies is rather limited in these cases.

5.3 MOBILITY OF TRAINED EMPLOYEES

One of the most important channels of local spillovers is through trained workers. All interviewed companies provide training to recruited employees. Some concentrate on knowledge and abilities directly connected to the actual work of the employee; however, there are others, which offer a set of courses, including language and self-development courses. (According to Dunning (1993, p. 372), trainings organised by foreign owned affiliates are usually narrowly focused on the actual needs of the activity, which the employee carries out. In our sample almost all companies offered trainings, which had a wider focus.) Training has been continuous in all interviewed companies.

These trained employees either go to work to local companies, or set up their own companies (or go to work to another local affiliate in the sector, due to the arising shortage of relevantly trained employees). These kind of “spin-off” companies are the most present in IT related services. Specific mention was made of this type of “spin-offs” in the case of two companies interviewed. This phenomenon was especially important for one company dealing with software engineering, where training is relatively lengthy (between 1 and 2 years), and there are cases, when former employees of this company set up their own small enterprise and carry out similar activities with successfully setting foot on the local market. Some smaller consultancy firms were also established that way. For shared services centres, where employees have no access and knowledge about the overall service process, this type of spin-off is basically non-existent. There was only one company in the interviewed sample, where employees could get an “oversight” of the whole, not IT-related service process. However, maybe due to the young age of that company, there were no spin-offs yet.

Box 2

"Spin-offs" from business services companies

EDS (Electronic Data Systems) is a US based multinational company; it is one of the leading independent service providers in the sector with 117.000 employees worldwide and 22 billion USD turnover. It set up its Hungarian affiliate in 1991, and it has an affiliate in basically every European country. Its Hungarian affiliate became one of the five global service centres and the only global service centre in Europe. At present it employs close to 2 thousand employees in Hungary, dealing with IT services, BPO, call centres, financial and accounting services. Though the share of local suppliers is negligible compared to total sales, and especially to export sales, but in some cases, in order to quicker fulfil the contract, they rely on local suppliers. There are cases, when former EDS employees set up their own firms, and the company has some cooperation activity with these enterprises. This is one of the main channels through which the company helps to increase the quality of local suppliers.

SAP is a German owned multinational in the software industry; it is a market leader globally in its segment. (According to Gartner Research: SAP is a leader globally in enterprise resource planning, (ERP), in customer relationship management, (CRM) and in supply chain management, (SCM), and it is third in global software production. It is present in more than fifty countries in the world. Among the NMS, it has a development centre in Bulgaria and Hungary and a shared service centre in the Czech Republic. It is present in Hungary with a representative office since 1991, and the development centre was established in 2005. The development centre employs close to 250 employees. Spin-off companies are set up by former employees of SAP Hungary, though this is less characteristic for the development centre and more characteristic for other parts of the Hungarian affiliate. There is a lengthy training process. When a person is hired, at the beginning there is a 2-month training. This is followed by 3-4 months on the job training. People start making profit for the company after 2 years and there are some employees who leave at that time, because in other firms or as a freelancer, they can earn more with that special knowledge gained through training and working at SAP.

Source: interview with EDS Hungary Ltd. managing director László Szakál and SAP Development Centre managing director, Ádám Dudits

Note: EDS was acquired by HP in 2008 after the interview was taken.

In the second case, when employees go to work to a domestic company, it is not only the special knowledge on technology, management, and the accumulated skills etc., which are transferred to local companies, but a kind of "business culture" and "working ethics" as well. This channel may contribute to raising the productivity of local companies and improving the business environment[9].

The third case represents a kind of upgrading, when after some training and gaining experience, from service centres with lower requirements workers move to another service centre with higher recruitment requirements. This was also mentioned by one company as a problem and causing high attrition rates and quick increase in real wages in the sector.

However, one has to note, that the knowledge transfer and organisational technology transfer is very limited on the basis of the Hungarian experience. That is the reason why in the sector there are only a few Hungarian owned companies which would be able to provide the required quantity and quality services and would become an important domestic or regional player. Another reason for that can be that the appearance of BPO companies has increased the competition for skilled labour, which first, may have a crowding out effect on Hungarian firms in the sector, and second, may have an adverse effect on other industries in the economy. Shortage of skilled labour is especially apparent e.g. in IT and engineering in Hungary.

5.4 INFRASTRUCTURE AND SERVICES

Both companies with foreign participation and domestic companies use infrastructure and other services. One of the important elements of locational advantages for this type of investments is e.g. the availability of relevant infrastructure, especially internet connection (broadband). The BPO-related companies, through their intensive demand for some elements local infrastructure and other services contributed to the increase in the quantity and quality of services offered. First of all, telecommunications infrastructure and services are affected. According to UNCTAD (2004), improvements in ICT-related infrastructure is one of the most important spillovers of BPO-related investments. Among other services, according to the interviews, the following are used the most intensively: training, catering, security, office space, financial services, employment/job agencies. These are called "usual services" in Table .One manager explicitly noted that some local service providers were given technical and managerial help in finding relevant employees for the company. The increase in the quantity and quality of services, the decrease in their prices due to the more intense competition may be beneficial for the domestic companies as well.

[9] This is especially important in a country with a relatively big black and grey segment of the economy.

5.5 IMPACT ON THE BUSINESS ENVIRONMENT

All companies interviewed in the framework of the project were active participants in the local business life, with memberships and active participation in various local organisations (AMCHAM, Hungarian chamber of commerce, other chambers of commerce, Hungarian Outsourcing Association). For the companies, these associations provide an informal forum for exchanging ideas, discussing experiences etc. Moreover, through these associations, they can express their views about the business environment; exercise some pressure for changing certain detrimental (for them) elements of it. One company actively (and successfully) lobbied through AMCHAM for including certain jobs into the agreement with Romania and Bulgaria on the free flow of workers. The other reason is the unstable nature of the business environment due to frequent changes in taxes and in the regulatory environment, which makes the companies quite active in voicing their opinions. This type of associations may bring benefits to domestic companies, because they provide a forum where domestic and foreign managers may meet and pass on to each other information and knowledge. (See e.g. Dunning, 1993, p. 470) Trying to find traces of this were outside the scope of this study.

Competition for relevant employees is one of the main factors determining local activities and links of the companies in the sector. This was to a great part motivated by the fact that as more and more companies appeared in Hungary in this sector, the availability of relevant employees became more and more limited – and connected to that, wages started to move upwards relatively quickly. This problem motivates companies to build up local links is with universities and other education institutes. They approach students partly for temporary jobs, partly for offering jobs after graduation. In Hungary, more "substantial" relationships, in terms of research and development cooperation between the companies and universities were also established, and the companies also finance various university activities. The presence and problems of these companies called the attention to the fact of missing educational categories, as a result of which, secondary level training for future call centre employees was introduced in seven secondary schools in Hungary. Moreover, recently the Hungarian Outsourcing Association, with the help of its members, organised a university level training course in "service sciences", which will be taught in at least 5 universities in Hungary.

The analysed companies use various measures to keep their employees, besides relatively high wages, other type of benefits (e.g. free canteen, health care insurances) are given to employees, social events and various trainings are organised for personal and skill improvements. Overall, the working environment in these companies can be evaluated as good.

5.6 REGIONAL IMPACT

As it is obvious from Table.., agglomeration forces work when BPO-related companies choose their locations. Budapest hosts the overwhelming majority of this type of companies. There are only a few (and smaller) centres, which go to the countryside. The main reason for their wandering out is the bigger and bigger shortage of suitable workers in Budapest. In the countryside, especially university towns became hosts to this type of investments (e.g. Miskolc, Szeged, Debrecen, Győr, Pécs) and Békéscsaba, Székesfehérvár. As it was already mentioned, university towns close to the border gained some important projects, where as an additional advantage from the other side of the border, people with "small" languages can be employed. The low level of "spreading out" of this type of investments to the countryside is in line with the statement of UNCTAD (2004, p. 169), according to which, because of the relatively skilled intensive nature and the required high level of infrastructure, the regional impact of that type of investments is very limited.

Table 5

Characteristics of the interviewed companies from the point of view of impact on the host economy

Company	Captive (C) or independent	Year of foundation in	Number of jobs	Backward linkages	Forward linkages	Overview of the production process for	IT involved	Links with other entities	Plants in the countryside
1	I	1991	2000	Limited, but exist, especially in software development, with local SME, and cooperation with SMEs set up by former employees; and the "usual" services bought locally	Significa nt, about 40 % of sales to the domestic market	In some segment s	yes	Numerous: AMCHAM, HOA, universities, countryside local governments and labour centres	Yes, 4
2	C	2008	165	Negligible, the "usual" services bought locally +furniture and office supplies	No (100 % export)	Yes (rotation and entities not rou-tine work)	Yes	AMCHAM, HOA, universities	No

3	C	2005	330	The "usual" services" sourced locally	Export/sales: close to 100 % (one Hungarian affiliate)	No	No	HOA	No
4	I (formerly C)	2002 (C) /2005 (I)	600	The "usual" services" sourced locally	Export/sales: close to 100 %, only one Hungarian client	No	No	AMCHAM; through HR for a: informal links, business schools	No
5	I	2004	1300	Negligible, the "usual" services" sourced locally	Domestic sales are significant	N.d.	Yes	AMCHAM, HOA, universities	Yes, 1
6	C	2008	50	The "usual" services bought locally	Close to 100 % exports	No	No	HOA, AMCHAM, French Chamber of Commerce	No
7	I	2005	750	The "usual" services bought locally	Close to 100 % export/sales	In some segments yes	yes	AMCHAM, HOA, universities	No
8	C	1996	250	The "usual" services bought locally	100 % export/sales	yes	yes	AMCHAM, HOA, German Chamber of Commerce, Association of Innovative Companies	no

Note: AMCHAM= American Chamber of Commerce; HOA=Hungarian Outsourcing Association, "usual services"= training, catering, security, office space, financial services, employment/job agencies
Source: own compilation based on the company interviews

CONCLUSION

The offshoring and offshore outsourcing of business services have become more and more widespread and involve more and more countries in both the receiving and sending end. East Central Europe is one of the locations, which is becoming host to offshored business services projects more and more frequently. In spite of the growing importance of the phenomenon, research efforts focusing on the topic have been quite limited up till now. Definition and data problems are partly responsible for that lack of research. Lack of clear and commonly agreed definitions and categories hinder the analysis. Available data are not appropriate for a thorough and reliable analysis, thus outputs of quantitative research are questionable, and can be considered only as an "upper limit" of the extent of the process. Researchers' contribution can be the most important from that point of view. It is obvious, that quantitative analysis in itself is not able to cope with the complexity of the problem. As other authors, e.g. Sturgeon et al., 2006 already suggested, in order to getting a better insight into the process, both qualitative and quantitative research, and especially the combination of the two must be carried out. Besides available data, this paper uses information from semi-structured interviews with eight leading managers of companies operating int he sector.

Hungary, together with the Czech Republic, Poland and to a lesser extent with Romania, is more and more involved in business and computer services outsourcing, as a host country. More and more companies are present with their regional, European or even global centres here. However, Hungary's market share is still minimal though growing inside the business and computer services of the European Union.

These countries, and among them, Hungary, have the specific locational advantages preferred by these types of vertical FDI, for which factor cost considerations and elements reducing costs of disintegration of production play a determining role. Being inside the European Union is important (reducing the cost of disintegration), thus one can expect that the Visegrad countries, together with Romania and to a lesser extent Bulgaria, will still be major hosts of intra-European movements and Europe-oriented services centres.

The impact of this kind of projects on the local economy was hardly analysed up till now. While this paper could not have a look at all the aspects and channels of local impact, it found that besides the middle to high skilled job creation impact, which is quite substantial, these companies have limited contacts with the local economy. Their forward and backward linkages are scarce, though forward linkages seem to grow with the age of the investment, if it can be characterised with a confluence of horizontal and vertical FDI. A more substantial form of local impact is spillovers through trained employees, though up till now employees move less to domestic firms and through "spin-off" companies, which latter is mainly confined to either IT-

related or horizontal activities. The regional concentration of these projects is significant thus their regional impact is limited.

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